

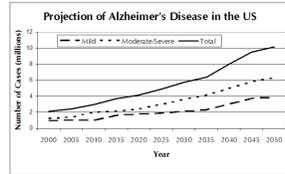
MindScout

Tool for Independence



The Problem: Alzheimer's Disease

- Alzheimer's disease...
 - ...Is a degenerative dementia.
 - ...Affects over 5 million Americans.
 - ...Begins with seemingly-benign memory loss.



The responsibility placed on caregivers is immense as everyday tasks become increasingly challenging.

MindScout alleviates two key issues of Alzheimer's disease.

- Carepartners are challenged to constantly engage the Alzheimer's patient with tasks and reminders.
- Carepartners' attention is overextended by answering the patients' frequently-repeated questions.

Our Solution: A Tool for Independence

- MindScout...
 - ...Is a tool to enhance patient independence.
 - ...Is not a replacement for a carepartner.
 - ...Offers greater peace of mind to the carepartner.
 - ...Eases the burden of Alzheimer's disease.
 - ...Delays the move to institutionalized care.

Features

Functional

- Automates reminders about daily activities
- Hears and answers a patient's most frequent questions

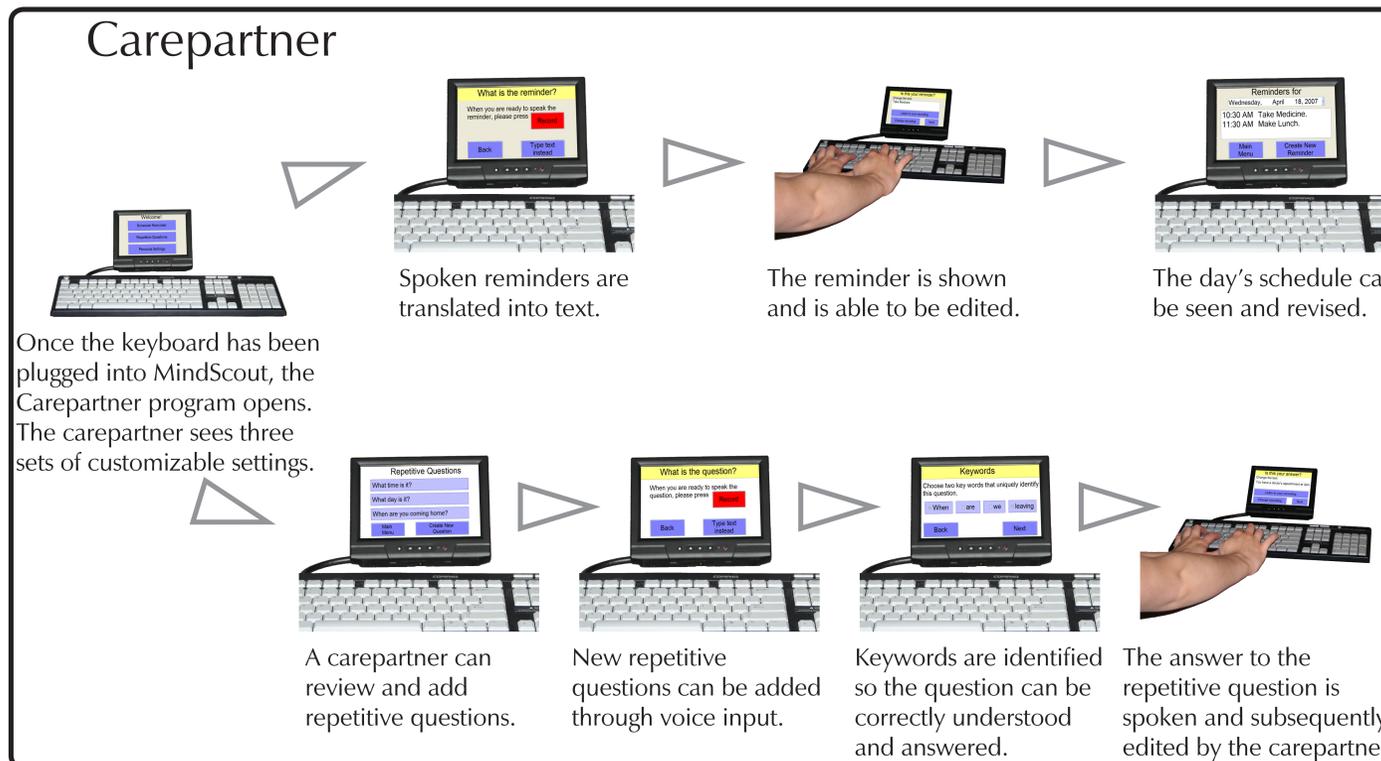
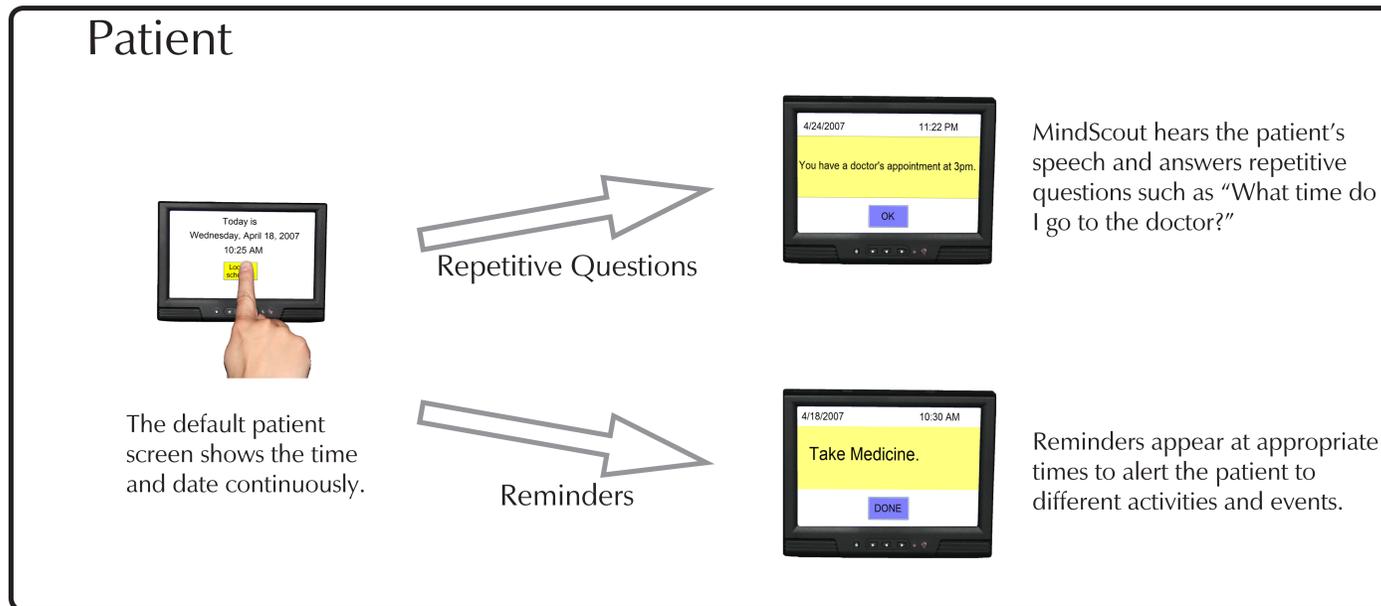
Convenient

- Handheld device
- Worn around the house
- Always on

Designed for the Older User

- Speech input provides ease of use
- Customizable interface
- Appropriate audiovisual cues

MindScout is a device for individuals with early-stage Alzheimer's disease and their carepartners. Key features include reminding patients about daily activities and answering their repetitive questions.

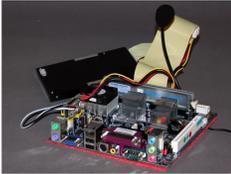


Device Specifications

- Seamless, easy-to-use custom software allows both voice and text input.
- Hardware offers a large screen, a sensitive microphone, and the processing power to run voice recognition software.
- Runs Microsoft Windows XP
- Uses Dragon NaturallySpeaking voice recognition

Hardware Development

- VIA mini-ITX mainboard
- 1 GHz x86 processor
- 4 GB IDE flash drive
- 7" 800x680 touch monitor
- Directional microphone
- USB keyboard included



Software Development

- Programmed with Microsoft Visual Studio .NET
- Code written in C#
- .NET framework provides simple high-level APIs for:
 - Multithreading
 - Windowing
 - Voice-recognition text input



Design Process

- Researched Alzheimer's disease and current products
- Interacted with carepartners and support groups
- Brainstormed device ideas
- Narrowed device ideas to four
- Selected single device

The F.W. Olin SCOPE Team
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